



eRegistries
Initiative

learning package

needs assessment & planning

core principles

The **needs assessment and planning** learning package aims to provide guidance to countries on mapping infrastructure and existing resources to assess the cost and benefit of planning for an eRegistry in their setting and facilitate the successful introduction of an eRegistry.

These stakeholders may include any user or beneficiary from the Ministry of Health, National Institutes of Public Health, IT departments, researchers, policymakers in governmental and organizations, care providers and civil society user groups involved in maternal and child health.

Main considerations during this phase entail evaluating country commitment and capacity and conducting a needs assessment using the *eRegistry Situation Analysis Tool (SAT)*.

The key elements of the eRegistry Situation Analysis Tool include:

- **Ethical, legal, and societal issues**
- **Essential maternal and child health indicators**
- **RMNCH data collection and management**
- **ICT Infrastructure and dissemination**

This process involves the assessment of existing reporting and surveillance practices, reproductive, maternal, newborn, child health data flow and collection systems, available open source platforms, financial issues.

After the decision to proceed has been made, guidance on the planning process involves developing an implementation plan, securing funding, designing a civil society engagement plan, and planning for the technical and capacity needs including integration with existing ICT and reporting systems and clinical workflows.

step by step guide

This step by step guide provides information on assessing cost and benefits, as well as, mapping, planning, and understanding the landscape relevant to implement an eRegistry.



STEP 1: SELECT A NEEDS ASSESSMENT TEAM

Identify a core team consisting of administrative and managerial members that can facilitate conducting a situation analysis. Next, identify other relevant key stakeholders that should contribute to this process.

Issues to consider include the following:

- What other stakeholders should be involved?
- Who could address important issues or concerns?
- Who could contribute expertise?



STEP 2: DEFINE THE KEY PRIORITIES FOR THE SITUATION ANALYSIS

- Define the primary purpose
- Brainstorm and discuss key issues and areas of concern
- Identify available data and data sources



Step 3: Customize the eRegistry Situation Analysis Tool (SAT) to your setting

- Consider ethical, legal, and societal issues
 - Identify relevant governance bodies, policies and legislation

- Document ethical concerns and societal impact
- Verify and describe existing data collection methods, data sources and management strategies for reproductive, maternal, newborn, and child health
- Identify essential reproductive health interventions and indicators
 - Gather existing RMNCH data collection forms
 - Review existing guidelines
- Assess existing health services, data collection, and management
 - Map maternal and child health services and interventions at each level
 - Develop inventory of the maternal and child health forms, log books and other tools used to record and summarize data at different levels. (see eRegistry Inventory List)
 - Assess the quality of the maternal and child health data collected using existing forms at different levels, i.e. accuracy, completeness, adequacy and timeliness
 - Identify challenges with the current maternal and child health data collection systems at all levels, including timing and flow of information
- Explore components of the health management information systems such as:
 - Data reporting
 - Data analysis
 - Data dissemination
 - Staff development activities
- Explore coordination, cooperation, and communication within and between different units in the Ministry of Health, as well as with related agencies outside of the ministry.

Step 4: Prepare for conducting Situation Analysis

- Identify resources that are necessary such as participant list, location, agenda, etc.
- Develop a timeline and plan for unexpected events such as delays
- Pretest draft of content and questions to assure feasibility
- Address anticipated problems and how they might be addressed
- Brainstorm on how findings will influence implementation

Selecting the appropriate methods will depend on the questions you wish to answer, available resources, and expertise, and time and geographic constraints. The eRegistry Situation Analysis Tool can gather quantitative and qualitative data via questionnaires, focus groups, informal interviews, or other methods. Additional strategies may include abstracting information from pregnancy cards and collecting secondary data collection from Ministry of Health documents.



Step 5: Conduct the Situation Analysis

Refer to the Situation Analysis Tool for detailed guidance on conducting the situation analysis.



Step 6: Analyze and summarize the findings

There are many different ways to summarize and present findings from the Situation Analysis Tool. One strategy is to utilize a SWOT analysis (strength, weakness, opportunity, threat) analysis can be used to present the findings.



Step7: Assess financial capacity

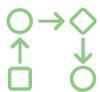
- Financial feasibility is critical to consider when planning and assessing the implementation of an eRegistry. What are the funding opportunities and what's the actual cost to develop, implement, sustain, and maintain such a system?
- Several aspects need to be considered in calculating the costs of an eRegistry. The overall scope, national rollout/district level rollout/number of clinics and level of system customization will vary from setting to setting.
- The financial aspects of implementing an eRegistry include planning and development, implementation, and running costs.
- Planning and development:
 - Identify guidelines: personnel cost (i.e., local/national team, external professionals, technical assistant) workshops, travel

Customize HIS: personnel cost (i.e., local/national team, technical assistant/software developer), travel

- Implementation:
 - Local coordination: personnel cost (i.e., local/national team, technical assistant), travel, car
 - Infrastructure: computers, server/cloud/ backup server, server hosting, Internet setup and connection
 - Training: training facilities, travel cost, per diem
 - Integration with existing system: personnel cost (i.e., local/national team, local IT, technical assistance)
- Running cost:
 - System owner: personnel cost (i.e., local/national team)

- Data management: personnel cost (i.e., local/national team)
- IT, system, and network support: personnel cost (IT)
- Infrastructure maintenance: computers, subscription fees (internet etc.)
- Maintenance & development: personnel cost (local/national team, local IT)

The timeframe of the different phases will vary depending on the scope of the rollout and phases may overlap. A full national rollout can expect to spend 1-3 years for planning and development, and 1-3 years for implementation.



Step 8: Next steps based on SAT findings

Depending on the specific findings of the SAT, the next steps will likely address content development and design, development of a civil engagement plan, integration of the system into clinical practice, reporting and surveillance, implementation, and training (see relevant learning packages for more information.)

Resources

- [*eRegistries Situation Analysis Toolkit*](#). The toolkit assesses the basic legal environment, existing data collection methods and sources, information technology infrastructure, data reporting and usage, and record research use and dissemination practices. The eRegistries Situation Analysis Toolkit is also available in Vietnamese ([*eRegistries Situation Analysis Toolkit - Vietnamese*](#)).
- [*Monitoring, Evaluation And Review Of National Health Strategies*](#). This document is also intended to provide guidance to partners working with countries, who are aiming to better align their support to monitoring and

evaluation activities (such as data collection, data analysis, and reporting), with the monitoring and review processes and mechanisms of the NHS.

- [*Health Information Systems Development and Strengthening*](#). Guidance on needs assessment for national health information systems development
- [*Planning an information systems project*](#). The toolkit focuses on the planning phase of an information systems project
- [*Assessing the Effect of mHealth Interventions in Improving Maternal and Neonatal Care in Low- and Middle-Income Countries: A Systematic Review*](#). This systematic review assesses the effect of mHealth interventions that support pregnant women during the antenatal, birth and postnatal period in low and middle income countries.
- [*K4Health*](#). Information on Needs Assessment and Formative Research
- [*Community Tool Box*](#). SWOT Analysis: Strengths, Weaknesses, Opportunities, and Threats

field notes



The process of conducting the situation analysis in Vietnam was guided by using the **PRECEDE-PROCEED** model which helped identify technical needs and contextual factors that could potentially affect the establishment of an eRegistry for maternal and child health.

The Situational Analysis Tool (SAT) provided a framework that paved the way for investigators to gain insights on three domains related to operational functions of the eRegistries, namely: indicators for essential interventions, availability of health information system infrastructure, and regulatory frameworks for governing health information systems in prospective countries.

The experience of fieldwork in Vietnam found that open-ended questions were effective at capturing contextual factors and challenges. Additionally, key lessons from this fieldwork demonstrated that to increase the likelihood of achieving long-term acceptability, affordability and

sustainability of the eRegistries initiative, it is of great importance to involve prospective users, namely key stakeholders from different levels of the national health information system. It is also important to customize the basic SAT tool accordingly to the country's context and adopt qualitative formative assessment approach when conducting the situation analysis. This will facilitate investigators to gain comprehensive knowledge on the country's needs of establishing an eRegistry.

field notes



Introducing the eRegistry in Palestine has been planned and is being implemented in a consensus-driven process with stakeholders in maternal and child health (MCH). As a first step and before developing the plan of action, four needs assessments have been completed with Ministry of Health (MoH) and The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) in the West Bank and Gaza who are the main providers for the MCH services in Palestine.

The initial needs assessment and inventory conducted were crucial to identifying the exact gaps and ensure the early involvement of all concerned stakeholders which is essential for successful implementation and sustainability. A qualitative needs assessment tool was developed at the global level with chapters on legal issues, essential indicators; minimum dataset; data collection; dissemination and use.

It was essential to adapt the tool in line

with Palestinian context before conducting the assessments; this was done through in depth interviews with five senior managers at the Ministry of Health, Palestine, then each needs assessment was completed though a one-day workshop with all concerned participants from MoH and UNRWA stakeholder institutions.

The needs assessment showed substantial data collection in antenatal, perinatal and postnatal care in local health facilities. However, very limited information is exchanged between primary and secondary care; jeopardising the continuum of care.

The main recommendation from the assessments was that the data collected should be kept at a necessary minimum and be selected according to evidence-based essential interventions. One way of improving the system in Palestine was to introduce a comprehensive computerised hRHR in a consensus-driven process with the major stakeholders in maternal-child health.